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ABSTRACT

This study was designed to assess parents' awareness of their young children's linguistic and cognitive levels and affective preferences in an attempt to investigate why parents modify their speech when talking to young children. Sixteen middle-class couples and their first-born children between the ages of 2 and 5 years participated in the study. The Parent Awareness Measure (PAM), developed for this study and given to parents individually, required parents to predict how their children would perform on the 92 linguistic, cognitive, and affective items. The children were subsequently given the PAM and their responses were compared with those predicted by their parents. Results showed that agreement between parents and children on the PAM was 51.3% for linguistic questions, 48.1% for cognitive items, and 47.8% for affective questions. There were no statistically significant differences between mothers and fathers in any of the sections, although in most comparisons mothers' scores were somewhat higher. Parents of older children were found to be significantly better at predicting their children's responses on the PAM than were parents of younger children. There was a high degree of similarity on the responses produced by the father and mother in any given family and the parents' responses correlated more with one another than either parent's did with the children in the family. It was concluded that parents have a general rather than a particular knowledge of their children's linguistic, cognitive, and affective abilities. (JMB)

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Father Doesn't Know Best: Parents' Awareness of their Children's Linguistic, Cognitive, and Affective Development

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Father Doesn't Know Best: Parents' Awareness of their Children's Linguistic, Cognitive, and Affective Development

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Much research in the past few years has shown that children acquiring language are spoken to in a very special way by the adults in their environment (Broen, 1972; Ferguson, 1964, 1974; Phillips, 1973; Snow, 1972). The types of modifications which adults make when talking to children seem to be universal, or at least have been observed in a variety of different cultures. Some features which characterize this special input language include slow rate of delivery (Broen, 1972), repetition (Kobashigawa, 1969), concreteness (e.g., parents do not typically talk to their children about the meaning of life), high fundamental frequency, simple sentences (Snow, 1972), and clearly defined utterance boundaries (Broen, 1972). These types of speech modifications occur not only when mothers talk to their children, but also when fathers and other adults talk to children (Gleason, 1975; Stein, 1976). Even children modify their speech when addressing younger children (Shatz & Gelman, 1973).

Input language appears to follow a developmental pattern, and may subserve different dominant functions as the child grows older and gains linguistic competence. Speech to very young prelinguistic infants does not contain the syntactic modifications described above (Phillips, 1973). This speech is, however, characterized by a high fundamental frequency and exaggerated intonation (Garnica, 1974). It is filled with affect rather than information, and serves to attract the infant's attention and establish

a warm bond between caregiver and infant, thus helping to lay the motivational base for later language acquisition.

Toward the end of the first year, when the infant typically begins to understand language, the modifications described by Snow (1972) and others appear. Adults continue to use these modifications through the preschool years, gradually increasing the complexity of their utterances as children evidence increasing competence. The emphasis in adult speech during this period is on conveying the rules of the language to the child as well as on conveying a set of basic concepts. Finally, the speech of adults to young school age children, who are competent speakers, takes on different characteristics (Gleason, 1973). The focus shifts from an emphasis on rules of grammar to an emphasis on the rules of the physical and social world. It is an obvious, but remarkable, fact that as children grow more competent, the adult speech directed to them also becomes more complex, both semantically and syntactically (Moerk, 1974).

Why parents address children in special ways is not fully understood. Nor is it known why parents change the input language over time. The process may be totally unconscious (in fact many parents claim that they do not speak differently to their children). Or, adults may be aware of their children's developmental level and may base their input language either on their knowledge of the particular child or on their knowledge about children in general. In order to gain an understanding of the bases on which parents modify their speech, we first need to find out what in fact parents know about their children's abilities. Parental sensitivity to children's abilities may be an important factor in determining how parents interact

with their children, linguistically and in other areas of their lives as well.

The purpose of the current study was to assess parents' awareness of their own children's abilities. A measure was developed to assess parents' awareness of their children's linguistic and cognitive levels and affective preferences. The measure was then used to determine if there are differences between mothers and fathers in their knowledge of their own children's abilities and if parents' knowledge about their children varies with the age of the children.

Method

Subjects

Sixteen middle-class couples and their first-born children participated in the study. Eight children were ages 2 - 3 1/2 and eight were 3 1/2 - 5. There were 8 male and 8 female children. Families were recruited primarily from nursery schools. The families followed traditional patterns, with fathers working away from home and mothers primarily responsible for child care.

Procedure

Both father and mother and their child came to our interview rooms, where parents were questioned individually about their children's abilities. While one tester was asking the child a series of questions, other testers presented each parent independently with the same set of questions in the same way they were presented to the child. Each parent was then asked to predict how her or his child would answer each specific item. The Parent Awareness Measure (PAM) took less than 30 minutes to complete. Parents

also answered some questions about their child's developmental history, such as when the child began to walk, and their own background.

Parent Awareness Measure

To assess parental knowledge of children's abilities, we developed a Parent Awareness Measure (PAM) containing linguistic, cognitive, and affective questions. Overall, there were 92 items in the PAM. These items were designed so that they could be administered both to children and adults.

The linguistic part of the PAM assessed both comprehension and production skills. For example, parents were shown two pictures, one of a mouse and one of mice, and were asked to predict which one their children would point to if asked to show "mice". For the production section, the tester might point to a picture of a boy and say "This boy is playing. Yesterday he did the same thing. Yesterday he. . .". The parent would predict how the child would respond. Both parts of the linguistic section contained items on vocabulary, morphology, and syntax.

The cognitive section contained items about children's abilities to do such things as copy block designs, count, and reason. The tester told parents how the questions were being presented to the child and asked the parent to predict the child's responses.

Finally, the affective section contained questions about children's preferences for such things as colors, television shows, and toys. For example, children were shown a picture of a doll and a truck and were asked which one they would like to play with.

Parental predictions were compared with the children's actual responses to determine the amount of agreement between a parent and child. For

linguistic and cognitive items, agreement could occur in two ways: a parent could predict that the child would give the correct answer and the child could be correct; or the parent could predict that the child would give the incorrect answer and the child could get the item wrong. For affective items, where there is no "correct" answer for children to give, agreement was simply based on whether or not the parent correctly predicted what the child would say.

Results

Responses to the Parent Awareness Measure were analyzed in several ways. First, we computed the percentage of agreement between mothers' predictions and children's responses and between fathers' predictions and children's responses. We did this for the younger and older children. Results are reported in Table 1. Overall, parents predicted correctly 65.8% of the time for linguistic comprehension and only 36.8% for production.

Insert Table 1 about here

Agreement between parents and children was 51.3% for linguistic questions, 48.1% for cognitive, and 47.8% for affective questions. There were no statistically significant differences between mothers and fathers in any of the sections, although in most comparisons mothers' scores were somewhat higher.

When we compared the parents of younger and older children, there was a significant age difference: parents of older children were better at predicting their children's responses than were parents of younger children. For example, in the linguistic section parents of younger children produced responses that agreed with those of their children 46.7% of the time,

while parents of older children agreed 55.9% of the time. In the cognitive section, parents were 40% accurate for the younger children and 56.3% in agreement for the older children. The only exception to this was in the affective section, when the difference between age groups held only for mothers (55% for older and 47.5% for younger children). Fathers of older children were no better than fathers of younger children in predicting their children's stated preferences. Otherwise, in every other section, parents of older children did better than parents of younger children. Thus, parents of older children generally perform better on the Parent Awareness Measure than parents of younger children, while mothers and fathers do not differ significantly in their ability to predict how their children will answer the questions.

Further analyses concerned family patterns and an investigation of the degree of similarity between the father and mother of each child. First we correlated the mother-child percentage of agreement with the father-child percentage of agreement, for each set of parents. This correlation indicated the similarity between parents in their accuracy at predicting how the child would perform. The correlations for linguistic items were highly significant (r = .79, $p < .01$). This finding is particularly interesting because there is a wide range of parental accuracy on linguistic items, from 26% to 69%. Parents of a given child were thus very similar in their ability to predict linguistic responses. The correlation for the affective items was also significant (r = .45, $p < .05$), and for the cognitive items, r = .37, which falls short of significance. This indicates that there are substantial family trends, and that parents are most similar to one another in their ability to predict linguistic behavior.

We next examined agreement between parents, without regard to the child's responses. For example, one boy said his favorite animal was an elephant, while both of his parents predicted he would say dog. In this case, there is agreement between parents but not between parents and child. Results are reported in Table 2. There were no striking differences between

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Insert Table 2 about here

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parents of younger and older children, but in every case, agreement is greater between parents than between parents and children (see Table 1). Parents' answers are more similar to one another's than they are to their children's.

Another analysis concerned parents' ability to predict how well their child would do overall, regardless of specific item agreement. We computed total scores for parents for the linguistic and cognitive sections, based on whether or not parents predicted their child would answer individual items correctly. (We could not do this for the affective section because there is no correct answer to a question like "What is your favorite food?"). Results are reported in Table 3. Correlations between parent's predictions

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Insert Table 3 about here

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of their child's overall score with the children's total scores were significant, with one exception--the correlation between father and child for linguistic production. The highest correlation was for linguistic comprehension, with $r = .83$, ($p < .001$) for mothers and $r = .80$ ($p < .001$) for

fathers. Overall, then, parents seemed to have a good idea of their children's general level of performance.

Finally, a more descriptive analysis was performed to see the types of predictions parents made, and to compare their responses with the children's responses. In all three areas of the PAM children sometimes gave responses that few, if any, parents predicted. In the linguistic production section, for instance, children were shown first a picture of a mouse, and then a picture of 2 mice. They were told "This is a mouse. And these are two _____?" When asked how their children would respond, 18 of the 32 parents predicted their children would say mouses. Only 5 of the 16 children actually said mouses. Five children said mouse, and no parent predicted this response.

In the affective section, parents were not very successful at predicting what their children would name as their favorite food, color, ice cream flavor, and animal. Only 3 parents predicted correctly what their children would say their favorite food was. Seven parents predicted their children would say spaghetti, while no children responded this way. Six parents said candy, while only 1 child produced this response. Children's responses were much more variable than parents'; they included such things as peas, chicken with salad dressing, pears, and corn flakes. The parent's list was dominated by what in our culture are generally regarded as children's foods: hamburgers, spaghetti, cookies, peanut butter and jelly sandwiches, hot dogs, ice cream, etc.

Perhaps the greatest differences between parents and children occurred in response to the question "What is your favorite animal?" Twenty parents thought their children would say cat or dog, but no children named these

animals, or any other common pets. In fact, the children's responses were typically wild animals, such as giraffe, gorilla, alligator, or leopard. This suggests that the word animal has a more restricted meaning for children than it does for adults; the children seemed to assume that animal means wild animal. Similarly, when asked what their children would name as their favorite color, 26 of the 32 parents predicted red or blue. Only 6 of the 16 children named red or blue as their favorite color. Among the older children, 4 named yellow as their favorite color, yet yellow was not named by any of their parents. These are only a few examples of the general finding that parents have stereotypic ideas about their children's responses to the items in the Parent Awareness Measure.

Discussion

Input language appears to be uniquely tailored to the linguistic and cognitive level of the children to whom it is directed; yet little is known about the mechanisms whereby adult speech becomes attuned to children's capacities. While parents' speech may make the child's task of learning less difficult, this effect is clearly not the cause of the modifications. Adults do not consciously set out to raise the fundamental frequency of their voices or to speak in a redundant fashion, and may be unaware of the linguistic devices they employ. It seems likely that the modifications are produced in response to interactional cues, but very little is known about where those cues might reside, or what it is that causes adults to speak as they do to children. This study was undertaken in order to examine some of the factors that underly modifications in the speech parents address to children.

There are several possible explanations for input language. Parents

theoretically might have no knowledge about their children, and might modify their speech solely on the basis of feedback from the child. That is, children could be shaping parents' speech by providing or not providing specific feedback signals (Gleason, 1977), such as signs of noncomprehension or inattention. Reinforcement theorists have shown that people, in fact, unconsciously alter their speech in response to even subtle reinforcement (Greenspoon, 1955). Feedback is a factor that cannot be discounted; but we also know that adults produce typical input language when speaking to children who provide no feedback at all because they are not present (cf. Snow, 1972). Adults also know in advance that certain topics are inappropriate for children, and do not rely on feedback for their initial choice of conversational subjects. No one, for instance, would even begin to talk to a three-year-old about political corruption. Adults have presuppositions about children's linguistic and cognitive abilities, as well as about their feelings about the world.

Adults seem to have a target child in mind when they speak. This target child could be a stereotypic or canonical child that adults have internalized, and they may be addressing this idealized child when they speak. Adults may have a general idea of what a three- or four-year-old is like, and their view may be heavily influenced by the prevailing view of children within the culture.

Finally, there is the possibility that parents know just what their own child is like at any moment in time and that interactions with the child are based on this particularistic knowledge. The current study was designed to examine whether parents in fact have made a detailed and accurate appraisal

of their own children's development; the Parent Awareness Measure was designed to help examine the kind of conscious knowledge parents have about their own children.

Overall, our results indicate that parents have a general idea of how well their children will perform on linguistic, cognitive, and affective items, but are not as accurate in predicting their children's responses to specific items. Parents who predicted that their children would produce a high proportion of correct answers had children who indeed gave many correct answers; and, similarly, parents who predicted a low number of correct answers had children who had a correspondingly low number of correct responses. Further, parents of older children were more accurate at predicting their children's responses than were parents of younger children. Although mothers and fathers did not differ significantly, mothers' predictions were consistently more accurate than fathers'. There was a high degree of similarity in the responses produced by the father and mother in any given family and the parents' responses correlated more with one another than either parent's did with the child in the family.

One might speculate that parents of older children were more accurate in their predictions because their children give more stable responses. However, the actual responses of older and younger children were equally variable. A simpler explanation might be that parents of older children have had more time to learn about their children and, therefore, are better able to predict how their children will respond.

The absence of mother-father differences in the cognitive and linguistic sections was rather unexpected. The only significant difference was in the

affective area, where mothers of the older children knew better than fathers what their children's favorite foods, colors, toys, and so on were. It is interesting to note that when asked to provide information about the age at which their child began to walk, all 16 mothers gave responses ranging from 11 to 16 months, which is in accord with norms for walking. Fathers' responses, on the other hand, ranged from 11 to 30 months, with 6 fathers giving 18 months or older as the age at which their child began to walk. Further, in no family was the father's estimate earlier than the mother's. This suggests that although fathers may be equally knowledgeable as mothers about their children's cognitive and linguistic abilities, they may not be as aware of specific developmental milestones and specific preferences as are mothers. Mothers' greater awareness may reflect the fact that they are responsible for the "affective" domain--they buy children's clothes, food, toys, etc.

Perhaps the most surprising finding of the study was that parents in a particular family were more similar to one another than either of them was to their own child. Parents have a good idea of their child's overall developmental level; however, they are not able to predict which specific items their child will answer correctly. For example, a parent might know that a child will get about 6 out of 10 vocabulary items correct, but will not be able to predict the specific items. Yet parents agree with each other about how their child will respond to specific items even if their predictions do not always correspond with the child's actual responses. The similarity between parents in their orientation toward their child is particularly obvious in the linguistic sphere. Thus, while parents in our

sample have no universal view of children, mothers and fathers within a given family are in general agreement about what their son or daughter is like.

Parents seem to have quite stereotypic notions of what their children's likes and dislikes are. A 'typical' four-year-old whose favorite color is blue, who loves dogs, and prefers dinner at the local fast food outlet emerges from the parent response data, while the children themselves displayed more idiosyncratic tastes. This provides some insight into the nature of socialization. It is, of course, possible that the children's answers were frivolous and not representative of their true feelings and that the adults were telling us what they thought their children really liked rather than what they would say they liked on one particular occasion. On the other hand, it appears that while parents are learning about their children they are also imposing cultural stereotypes upon them. Thus, in our society, children come to prefer blue as a color and hamburgers as a food at least in part because this behavior is expected of them.

These results have shown that parents have general rather than particular knowledge about their own children at any point in time, at least on the conscious level. They do not necessarily explain the fine tuning that may be observed in parents' responsiveness to their children. Mothers and fathers may be unaware of the subtle cues that enable them to adjust the mean length of utterance to the child's specifications. At the same time, it may well be that some parents rely more upon stereotypes and some are more sensitive to the individual child. Whether these sensitivities are reflected in the rate and quality of children's linguisitic development is

one topic of our current research.

In a broader sense, investigation into parents' cognitions about their own children suggests many other studies. Parents have presuppositions about their children's motor abilities, strength, social skills, and potentials of many sorts. Some of these may be general within the society and others may be sex-typed or particular to one or another social class or group. Research into parents' beliefs will add to our understanding of the forces that shape children's lives.

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Table 1

Mean Percentage of Parental Responses in Agreement
with Children's Responses on Parent Awareness Measure

	Age								
	2 - 3 1/2			3 1/2 - 5			Overall Means		Overall Means
	Mothers (N=8)	Fathers (N=8)	Mean Mot. & Fat.	Mothers (N=8)	Fathers (N=8)	Mean Mot. & Fat.	Mothers (N=16)	Fathers (N=16)	Mothers & Fathers (N=32)
Linguistic Overall	47.25	46.13	46.69	56.93	54.00	55.9	52.09	50.53	51.31
Linguistic - Comprehension	64.10	61.25	62.28	70.37	67.75	69.06	67.25	64.50	65.80
Linguistic - Production	30.37	31.00	30.68	43.50	42.13	42.81	36.94	36.50	36.75
Cognitive	41.25	38.75	40.00	58.75	53.75	56.25	50.00	46.25	48.13
Affective	47.50	47.50	47.50	55.00	41.25	48.13	57.25	44.38	47.81

Note - All numbers reflect percentage of agreement between parent and child based on individual item comparisons

Table 2

Mean Percentage
Agreement Between Mothers and Fathers
on Their Predictions of Child's
Performance on Individual Items

	Age of Children		
	2 - 3 1/2	3 1/2 - 5	Total
Linguistic Overall	55.7	61.1	58.4
Linguistic - Comprehension	71.6	74.2	72.9
Linguistic - Production	38.9	47.5	43.2
Cognitive	52.0	58.6	55.3
Social	66.2	66.2	66.2

Note - Whether or not parent predictions were in agreement with a child's responses was not relevant for computing mother - father agreement.

Table 3

Correlations Between Parents' Prediction
of Child Performance and Child's Performance
on the Parent Awareness Measure

	Mother - Child	Father - Child
Linguistic Overall	.59**	.48
Linguistic - Comprehension	.83***	.80***
Linguistic - Production	.53*	.35
Cognitive	.49*	.66**

Note - Parents' scores were computed by totaling all items which parents predicted their child would answer correctly. Child scores were computed by totaling all items which the child answered correctly.

* $p < .05$
** $p < .01$
*** $p < .001$